



Measurement of End User Satisfaction Using EUCS Method on Fundraising Administration System of One of Philanthropic Institutions in Indonesia

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Abstract

This study's objective was to determine the degree to which the end user (a fundraiser) was satisfied with the fundraising administration mobile application system based on content, correctness, format, usability, and timeliness factors. End-user computing satisfaction (EUCS) is the quantitative measuring model researchers employ, and online surveys are distributed to get the necessary information. The researchers opted to include all participants in the population as respondents because 25 regular fundraisers in the Jabodetabek area made up the study's overall population. The data processing programmer utilized is IBM SPSS Statistics 25. The outcomes are the EUCS variables (content, accuracy, format, ease of use, and timeliness), which have a more than 75% substantial impact on fundraiser satisfaction.

Keywords: Mobile Application, Measurement, EUCS, Satisfaction.

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1. Introduction

This study was carried out in a single philanthropic organization that belongs to the Indonesian people and is committed to improving the social and humanitarian values of the underprivileged through the use of ZISWAF funds and other legitimately obtained from people, organizations, businesses, or institutions. Non-profit institutions also have other programs that do not only focus on zakats, infaq, shodaqoh, and waqf, such as social development, health, education, the economy, and advocacy. In addition, non-profit institutions also have 11 domestic branches, nine alliance networks (cooperation), and five non-profit institutions. Furthermore, based on interviews with CRM (Customer Relationship Management) division, the number of fundraisers was adjusted according to counter needs and events held by non-profit organizations as a whole. The number of regular fundraisers is 25 people, while to find out the number of non-regular fundraisers, the researcher conducts an analysis, namely reducing the number of fundraisers each year with regular fundraisers so that average results are obtained. Fundraisers are not only tasked with collecting funds from donors but also offering superior programmes or the quality of institutional performance to donors [1].

Based on an interview with IT Manager, the donation collection system currently used by non-profit organizations is the Fundraising Administration System for database management. The function of this system is as a tool during transactions such as recording donor data, recording donations received, sending reports, and so on. After evaluation, the system was replaced twice with the previous system, and weaknesses were found in the system related to data control, such as donor data redundancy. Then, the Fundraising Administration System itself consists of 3 types of displays: (1) Desktop, which is the main system and is used by the CRM (Customer Relationship Management) division; (2) Website, which has the advantage that donors can check donations that have been made using account ownership; and (3) Mobile Application, which is used by fundraisers. According to the findings of a preliminary study carried out by experts, the Fundraising Administration System's mobile application is the subject of a number of complaints [2]. After several months of running the system, the IT division received complaints from 10% of fundraisers about the new version of the Fundraising Administration mobile application system related to the quality of data input [3]. For example, transaction data input can only be done one by one. So, if there are donors who donate two or more types of transaction inputs, they can only be done one at a time, not all at once, as well as print out proof of transactions. In addition, based on the results of interviews with 5 fundraisers (Bekasi, Depok, Tangerang, Central Jakarta, and South Jakarta areas) from 25 fundraisers in the

Jabodetabek area, it can be concluded that there were complaints related to data input during transactions that were not optimal when used, such as errors occurring, and if there was an error when the fundraiser transaction could not be corrected directly, one had to wait for action from the CRM or IT first, which was felt to be less effective. Thus, the quality of the system's data input has not met the fundraiser's expectations [4]. In addition, based on an interview with CRM manager, there were complaints from the IT helpdesk from the start of the use of the Fundraising Administration Mobile Application System until now, namely network-related problems that often occur. User satisfaction is one of the aspects that affect whether a system is effective, thus the researcher measures satisfaction to determine whether it is or is not [5].

Researchers use the EUCS model as a foundation for assessing the degree of user satisfaction with technological aspects based on the dimensions of content, accuracy, format, accuracy, time, and system ease of use. This is because evaluations using this model emphasise or focus more on end user satisfaction with technological aspects, according to references that researchers have read [6]. The EUCS model, which compares end users' expectations and reality of a system, was chosen because it has been extensively used in numerous studies to test its reliability, and the results have not significantly changed even though this instrument has been translated into different languages. The EUCS model is more useful than other satisfaction measurement models such as UIS (User Information Satisfaction). In addition, the non-profit organization itself has implemented an information system, or the use of the Fundraising Administration System has become a necessity in transactions and archiving donor data so that evaluation can be carried out; therefore, the researchers decided to conduct research using the EUCS model [7].

Fundraising is an activity that involves influencing the community so that they can channel their own funds, non-funding resources, and sympathy or community support to the existing community [8]. In essence, fundraising is providing offers related to superior programmes or quality performance from institutions or communities to the community (donors) so that they can provide support and participation. So, fundraising is not a culture of begging but more about selling, offering, or introducing work programmes to partners [9]. Of course, the technique must convince the public or donors to want to donate and show why the activity or program in question is significant. User satisfaction is a form of user description when viewing an information system realistically and reflects how far the level of user confidence in using the information system that has been provided can meet their information needs. User satisfaction can be measured and compared over time, even though it is not economical and cannot be linked directly. EUCS is an evaluation carried out as a whole by users of the information system used based on their experience using it. From this experience, the level of information quality will be measured. The employed information system is efficient and meets user expectations [10].

As for the example of research on android-based applications using EUCS, this research only involves two variables (content and timeliness). The results of this study indicate that users are satisfied based on the content variable and dissatisfied when measured by the timeliness variable at Tapp Market (an Android-based online shop application). Five factors are taken into account in other studies: content, accuracy, format, usability, and timeliness [11]. The findings of the respondents' selections of the statements provided agree with an average of about $\geq 80\%$, according to the variables employed. In other words, the application is considered successful and meets user expectations. From the results of this kind of research, researchers get input that these variables can measure satisfaction and can influence their significance. In addition, researchers also learn by completing a study related to satisfaction measurement. This prompted researchers to evaluate user satisfaction related to the Fundraising Administration mobile application system.

2. Research Methods

Researchers reviewed some of the literature related to this research. Among them are books on research methods, books on statistics for research, books related to SPSS for data processing, and books related to multiple regression analysis. Furthermore, researchers also read articles related to data processing methods and journals that discuss end-user satisfaction research using the EUCS model. This literature review was carried out not only as a source of information but also as a reference to find out the advantages and disadvantages contained in previous research. data collection using interviews and questionnaires. Based on data obtained during interviews with CRM, the number of fundraisers reached 25 people who are regular fundraisers. For the results of the questionnaire, from the Google Form, it is classified into the form of Ms. Excel. Then, the data is inputted into SPSS for processing. Next, the researcher used the MS Word to group respondent data based on gender, age, system role, and user satisfaction status in general by using a pie chart. In order to test the validity, reliability, multiple regression requirements test (regression line linearity, residual normality, heteroscedasticity, and multicollinearity tests), multiple linear regression tests, and hypothesis testing, the researcher then processed the data using IBM SPSS Statistics 25 software. so that you receive the desired outcome. The researcher then discussed the descriptive findings of the respondents in light of the current field circumstances and converted the findings of the model analysis into quantitative statistics by contrasting and taking into account a number of earlier comparable works of literature.

3. Results and Discussion

It is known that the number of respondents is 25 with 64% female and 36% male, which means that the respondents are dominated by women. Since the author used all currently existent populations as respondents in this study, the number of respondents is equal to the total number of regular fundraisers in the Jabodetabek region as a whole. This is consistent with the information gleaned from the interview. The majority of the fundraisers in this study were 22 years old, including 6 individuals (24%), 5 individuals (20%), 4 individuals (16%), 3 individuals (19%), 3 individuals (20%), 2 individuals (8%), 24 individuals (4%), and 1 individual (4%). Researchers are only interested in learning the system users' sensitive ages in this instance. Assuming that the current age of mobile application users is classified as an age that is still productive in using technology and is considered to be more careful in making assessments. 100% of fundraisers feel helped by the role of the mobile application system. Researchers argue that with this system, archiving donor data is better and more efficient than previously done manually. This shows that there is good development on the part of the agency. 56% of fundraisers are satisfied with using the mobile application, and 4% are very satisfied. In this case, the researcher assumes that at least the users feel 'very satisfied' with the system because this system is classified as a new version of the system and is in the process of being developed.

The coefficient value of R^2 is 0.782, or 78.2%. As a result, the ability of the independent factors (content, correctness, format, simplicity of use, and timeliness) contributes to the dependent variable (user happiness) by 78.2%; the remaining portion is influenced by other variables that were not considered. If the constant (a) may be understood as if the variables content (X1), correctness (X2), format (X3), usability (X4), and timeliness (X5) are equal to 0, then the user satisfaction level (Y) is reached by -1.007. The degree of customer satisfaction will rise by 0.318 for every 1 unit increase in the content variable (X1), according to price b, which is positive. The user satisfaction level will rise by 0.167 for every 1 unit increase in the accuracy variable (X2), according to the coefficient price for this variable, which is 0.167. The format variable (X3)'s pricing coefficient is 0.102, which indicates that for every increase of one unit in the format variable (X3), the degree of user satisfaction will rise by 0.102. The level of user satisfaction (Y) will rise by 0.124 points for every additional unit that the ease of use variable (X4) increases by, according to the coefficient value of 0.124. When the price b is negative, the degree of customer satisfaction (Y) will drop by -0.06 for each unit that the timeliness variable (X5) declines. The acquired f-count was 13.636, the significant value was 0.000, and the f-table value was 4.170, indicating that $f\text{-count} \geq f\text{-table}$ and sig values. If the F-count is less than 0.01, then H_0 is "rejected" and H_a is "accepted," indicating that the user satisfaction metric is significantly impacted by the independent variables (content, correctness, format, usability, and timeliness).

By adapting for study objectives, the researcher creates the instrument by combining questions from several similar researchers whose validity and reliability have been validated, resulting in results that are consistent with expectations. Due to the fact that F2 and T2 do not satisfy the criteria or standards for use, it is evident from the results of the tests that have been performed to evaluate the validity of the instrument that there are two invalid indicator items. Researchers have tried testing the validity using different methods, but the results still show that there are invalid items. That way, the researcher thinks that the invalidity of the items could be due to the biased understanding or interpretation of the respondents towards the research questions or the respondents' lack of seriousness in answering the questions in the questionnaire. According to Cronbach's Alpha (0.928) > 0.60 (α), which indicates that the respondents' responses are consistent or stable, the instrument is deemed to be "reliable" in terms of validity.

Determine the link between the independent and dependent variables using the regression linearity test. The test's findings also show that the regression line for this study is linear, indicating that there is a substantial correlation between the variables user satisfaction and content, correctness, format, usability, and timeliness. A significance value larger than 0.01 is used by the researcher at this testing step as the foundation for decision-making. The residual normality test is used to determine whether or not the residual values are normally distributed. In order to ensure that the data are normally distributed, the researcher initially searches for residual values during this testing step. Because other methods used by researchers to analyse the data produced results that indicated the data were not regularly distributed. Thus, in order to meet the criteria for performing a multiple linear regression test, researchers are working to identify the optimal approach to ensure that the data is normally distributed. Furthermore, a good regression model has a normal residual distribution. In order to determine whether the regression model found a correlation between the independent variables (content, accuracy, format, usability, and timeliness), the multicollinearity test was carried out. A good regression model does not have a correlation between the independent variables. According to the study's findings, multicollinearity does not exist. since the tolerance is larger than 0.1 and the VIF value is less than 10. This study has therefore satisfied the criteria for carrying out multiple linear regression tests. Test for heteroscedasticity: this test was used to determine whether the regression model held true or whether there was variance inequality between different residual observations. Finding the residual value and then converting it into an absolute residual value are the steps involved in testing utilising the Glejser method. There was no heteroscedasticity in this study, according to the results, which were obtained after

the independent variables were regressed with the absolute value of the residual. Overall, it can be concluded that this study satisfies the conditions for carrying out multiple linear regression analysis.

The purpose of this study is to investigate the impact of the EUCS variables (content, correctness, format, simplicity of use, and timeliness) on fundraisers' satisfaction with using the mobile application. The study's findings indicate that the R² coefficient is 0.782, meaning that the EUCS variables in this study content, accuracy, format, ease of use, and timeliness contribute 78.2% to end users' satisfaction with the mobile application, with the remaining 21.8% being influenced by factors that were not examined. From 100%-78.2%, we can calculate the value of 21.8%. Additionally, the results of the correlation coefficient test, which show the values of $f\text{-count} = 13.636$ $f\text{-table} = 4.170$ and the sig. $f\text{-count} = 0.000 < 0.01$, show whether or not the EUCS variables (content, accuracy, format, ease of use, and timeliness) have a significant effect. These results demonstrate that H_0 was "rejected" and H_a was "accepted" in this study. Based on the regression equation discovered throughout this investigation, the regression line equation demonstrates that the constant value is -1.007. The level of user satisfaction will rise by 0.167 for every unit increase in the content variable (X₁) if all X are equal to 0. The Y value is thus -1.007, and the regression coefficient value for the content variable (X₁) is 0.318. The same is true for other variables. Additionally, the level of user satisfaction (Y) will drop by -0.06 if the timeliness variable is reduced by 1 unit.

Five factors (content, correctness, format, convenience of use, and timeliness) were employed in the prior study that served as a guide for the current study to analyse the level of user satisfaction with the relatively new SILADDU administrative information system. This research has the same small number of samples. The research results are only descriptive of the responses from the respondents, not at the stage of a more detailed statistical analysis. In contrast, in another instance, only two factors, namely content and timeliness, were utilised to describe user satisfaction with the Tapp Market application and to create suggestions for enhancing the application's quality. The common goal of both studies is that they use Android-based applications. In accordance with the suggestions in this study, for statistical testing, regression testing has yet to be carried out. When compared to the two studies, this study is superior in terms of statistics or can be said to be more detailed than the two studies because the researcher has followed the requirements needed in the linear regression test, while the second study only analyzed and described the level of user satisfaction, not in detail. In addition, the level of accuracy of the data in this study is fairly high, even with a relatively small population, because it corresponds to the error rate used in this study, which is 1%. That is, with an error level of 1%, the reliability level is 99%. This is the strength of this research.

4. Conclusion

Out of the 17 indicators, two are invalid because they do not meet the predetermined criteria, namely F₂ (attractive) on the format variable and T₂ (response speed) on the timeliness variable, or because each of their values has an r-count less than r-table = 0.502 and a value significance > 0.01. Fundraiser satisfaction level based on the EUCS variable in using the mobile application is 0.782, or 78.2%, while 21.8% is influenced by other variables not examined. According to the stated hypothesis, it appears that H_a is accepted, and that the factors in this study's content, correctness, format, usability, and timeliness collectively have a substantial impact on fundraiser satisfaction with using the mobile application. According to the research findings, these five factors collectively have a significant impact on fundraiser satisfaction, so agencies are encouraged to always pay attention to and take these five factors into consideration in order to increase fundraiser satisfaction when using the mobile application. For those interested in conducting further research, in order to determine the success of the system, they can evaluate it using methods or models other than satisfaction measurements.

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